

UPM Steyrermühl

Environmental and Societal Responsibility 2017



UPM Steyrmühl

Founded in 1868, over the decades the factory has been a crucial factor in the industrialisation of the present-day community of Laakirchen in Upper Austria. Up to 300,000 tonnes of high-quality printing papers are produced per year on one of the largest and most modern paper machines.

Our three-stage biological treatment plant cleans the mill's effluents as well as the local wastewater from the Laakirchen pollution control association. Combined heat and power plants ensure that primary energy is used efficiently. UPM Steyrmühl and Laakirchen Papier AG have a subsidiary (EEVG – Entsorgungs- und Energieverwertungsgesellschaft) which operates a fluidised bed boiler to recover energy from residual materials.

The sawmill is a wholly owned subsidiary which produces up to 400,000 m³ of timber per year. Sawmill residues are used as a raw material for papermaking. The Group's wood sourcing operation supplies both the paper mill and the sawmill with wood from sustainably managed forests.

The Laakirchen pollution control association has set up a state-of-the-art landfill site which is operated in accordance with the requirements of the new landfill regulation.



Production capacity	Up to 300,000 tonnes per year
Personnel	400
Products	Standard and improved newsprint: UPM News UPM EcoBasic UPM Brite UPM Prime
Certificates	EMAS – EU Eco-Management and Audit Scheme ISO 14001 – Environmental Management System ISO 9001 – Quality Management System OHSAS 18001 – Occupational Health and Safety Management System PEFC™ Chain of Custody – Programme for the Endorsement of Forest Certification FSC® Chain of Custody – Forest Stewardship Council
	All certificates can be found in UPM's Certificate Finder (available at www.upm.com/responsibility)
Environmental labels	Austrian ecolabel (UZ 02) for UPM News "Blue Angel" ecolabel (RAL-UZ 72) for UPM News and UPM EcoBasic EU ecolabel for UPM News and UPM EcoBasic



UPM Steyrmühl Environmental and Societal Responsibility 2017 is a supplement to the Corporate Environmental Statement of UPM's pulp and paper mills (available at www.upm.com) and provides mill-specific environmental performance data and trends for the year 2017. The annually updated mill supplements and the UPM Corporate Environmental Statement together form the joint EMAS Statement of UPM Corporation. The next Corporate Environmental Statement and also this supplement will be published in 2019.

UPM leads the forest-based bioindustry into a sustainable, innovation-driven, and exciting future across six business areas: UPM Biorefining, UPM Energy, UPM Raflatac, UPM Specialty Papers, UPM Paper ENA and UPM Plywood. Our products are made of renewable raw materials and are recyclable. We serve our customers worldwide. The group employs around 19,100 people and its annual sales are approximately EUR 10 billion. UPM shares are listed on NASDAQ OMX Helsinki. UPM – The Biofore Company – www.upm.com



FSC-certified products can be found at: www.fsc.org



PEFC-certified products can be found at: www.pefc.org



EU Ecolabel : FI/011/001



www.blauer-engel.de/uz72



Review of the year 2017

There is a long tradition of environmental protection in Steyrermühl. When new production plants were built at the beginning of the 1980s, major investments were also made in environmental protection, especially in effluent treatment, energy supply and waste management. We have been working with a quality management system since 1994, which over the years has been developed into an integrated management system for quality, environment, fire protection and occupational health and safety. Energy management was integrated into the system for the first time in 2015. Our active mill fire brigade forms the basis for effective risk and emergency management. Staffed by specially trained volunteer employees, it is able to provide an effective response in the event of an emergency in conjunction with the emergency services from the surrounding communities. The wood sourcing operation gained PEFC chain of custody certification as far back as 2001. Our products continuously meet the stringent requirements of European ecolabels. Most of our paper products have been FSC-certified since 2008.

Our 2017 environmental focus areas can be summarised as follows:

(see Performance against targets)
We were again able to comply with the applicable environmental regulations in the last year and have proactively made changes using our environmental management system. Following the decommissioning of paper machine 3 in March 2017, there were changes in water consumption and effluent volumes. However, the treatment plant operated stably and no limit values were exceeded. We narrowly failed to meet water conservation targets. The level to which fly ash – branded as Cinerit for commercial purposes – was used as a stabilising agent in earth works was kept stable. The overall fly ash recovery rate was almost 100%.

We will continue to improve through the ongoing evaluation of our processes and implementation of appropriate measures

The classification of ash as a product is the most important basis for retaining the high recovery rate in future. Maintaining a high recovery rate will continue to pose a major challenge.

The decommissioning of paper machine 3 posed major challenges in stabilising the levels of specific fresh water consumption and effluent discharge in production. Our objectives for the coming years will continue to focus on energy and water-saving measures, as well reducing fibre loss across the production areas.



Dipl. Ing. (HTL) Ernst Spitzbart
Managing Director

Christian Polzinger, MSc
Environmental Officer

Responsibility figures 2017

Waste



0 kg

of waste was sent to landfill.

Over 50% of the ash volume is used as a high-quality construction product for earth stabilisation.

Water



Specific load of organic matter in cleaned wastewater (t COD per tonne of paper) reduced by

25%

in the period 2008–2017

Effluent volume reduced by

37%

in the period 2008–2017

Air



Specific nitrogen oxide emissions from the power plants reduced by

60%

in the period 2008–2017

Specific fossil fuel carbon dioxide emissions from power plants reduced by

63%

in the period 2008–2017



Energy

Specific energy use (kWh per tonne of paper) of biogenic fuels increased by

44%

in the period 2008–2017

Safety

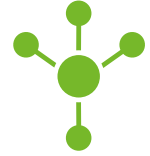


The number of injuries with lost time could be reduced by

100%

(9 in 2008, 0 in 2017)

Supply chain



93%

of raw materials (without wood) are qualified in accordance with the UPM Suppliers and Third Party Code.

Taxes



Overall

EUR 17 million

wage tax, social security contributions, employer's contribution (Family Burdens Equalisation Fund), community tax and real estate tax.



Fibre raw materials

In 2017, the proportion of wood chips from sustainably managed forests (PEFC + FSC) was

71%

56%

Proportion of recycled fibres in paper produced by us in 2017.

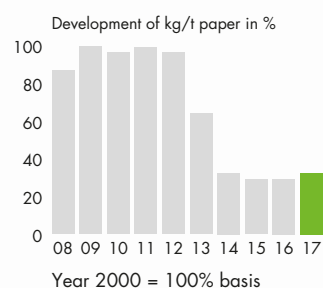
Production and raw materials



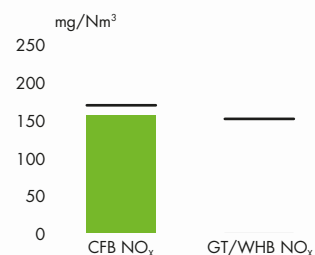
Due to the decommissioning of paper machine 3, production decreased by 100,075 tonnes compared to the previous year. Recovered paper consumption decreased by 78,699 t.

The gas turbine with downstream heat recovery boiler was again not put into service during 2017. The required electrical energy was purchased. As a result, natural gas consumption as well as site-specific CO₂ and NO_x emissions were stable at a very low level.

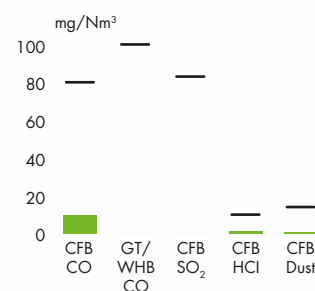
Fossil carbon dioxide, CO₂



Airborne emissions from energy generation



Airborne emissions from energy generation

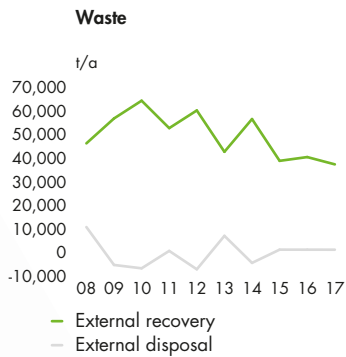


CFB=Circulated fluidised bed boiler
 GT = gas turbine
 WHB = waste heat boiler

Waste



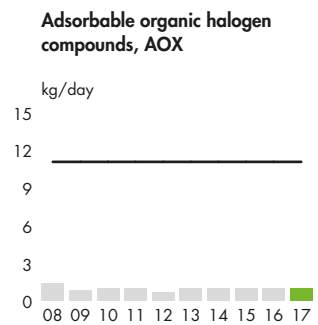
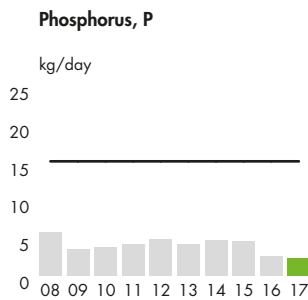
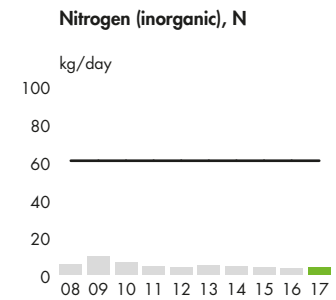
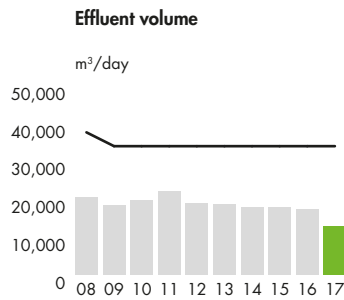
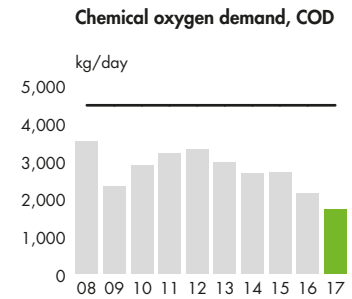
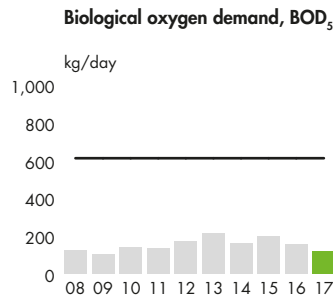
The use of fly ash from our fluidised bed boiler as a stabilising agent was relatively stable compared to the previous year. The recovery rate of ash (including material temporarily deposited in landfill) was 102%.



Water



Due to the decommissioning of paper machine 3, the total effluent volume decreased by 1,618,119 m³ compared to the previous year. The specific COD load per tonne of paper discharged from the treatment plant increased slightly by 7%.



Societal responsibility

Work safety

Measures introduced as part of the workplace safety initiative, which has been ongoing at UPM since 2012, have implemented safety principles and safety standards that surpass legal requirements. These measures include visits by executives, targeted talks on workplace safety and safety-related observations of staff for the purpose of reinforcing awareness among all employees regarding unsafe conditions and actions. In-depth exchanges of experience with other UPM mills regarding accidents and incidents, in particular those posing high risks, and cross-site workplace safety audits enable staff to learn from others without having to experience such incidents themselves and thus be able to identify hazards in advance.

In 2017, six particular safety standards were highlighted among all of those that have been introduced. Special campaigns, training sessions and events relevant to these protective standards were held throughout the year: "working at height", "risk assessments", "permit to work", "confined spaces", "lock out – tag out" and "mobile equipment and cranes". In total, there was a reduction in accident frequency (number of accidents with at least one day of lost time per one million hours worked) from 14.6 in 2008 to 0 in 2017.

This meant that the UPM target was achieved, but there will now be more focus on keeping the accident rate this low on a sustainable basis and avoiding serious accidents completely. Plans are in place to standardise high-risk processes, conduct more in-depth risk assessments, promote awareness regarding work taking place at height and to highlight workplace safety as a management task.

Preventative healthcare

We spend a large part of our life at work and often come across working conditions that have a positive or negative impact on health.

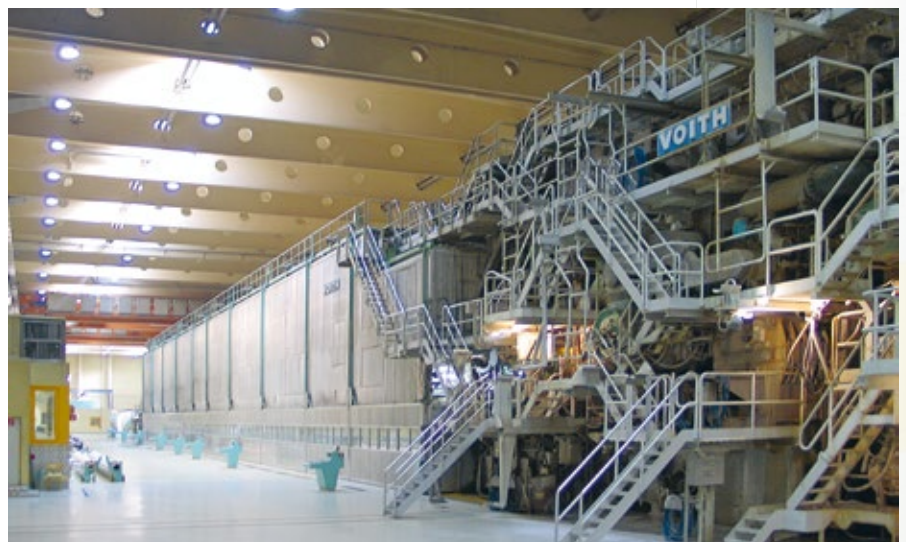
Healthy, capable and motivated employees are a prerequisite for the success and competitiveness of our sites. That is why we want to create conditions that enhance the health of our employees, increase the workforce's awareness of health and thus also improve, encourage and maintain work satisfaction and motivation.

As a result, a company health management programme offering a wide variety of services was inaugurated – many of UPM Steyermühl's employees took advantage of the opportunities offered. Courses were held including back exercises and Nordic walking. Funding was made available for massages. Blood sugar tests, hearing tests and ear canal cleaning took place at the annual health day 2017. As part of the "workplace programme", some departments have investigated whether workplace ergonomics can be improved and which on-site movement exercises can maintain or increase health and wellbeing. The "Evaluation of physical load" project was started with external support in 2016 and is expected to be completed in 2018.

Engaging with communities

UPM Steyermühl supports the Paper-makers Museum with integrated cultural and event centre. With well over 100 events per year, this centre is one of the busiest event centres in the region. In connection with the museum operator, which offers special services for schools (a series of workshops such as making paper by hand or environmental protection), a large number of tours of the mill take place both for pupils and for other interested groups. The site is also home to an art school where people with disabilities are integrated in a fun and educational manner.

UPM Steyermühl works with the local citizens' initiative LUI and regularly holds information meetings with the Laakirchen citizens' council. This cooperation has become a fixed institution over its 20-plus-year history and has established itself as a highly successful confidence-building measure for projects and subsequent plant operating permits.



Cooperation with schools and training

Paper technicians, electrical engineers, mechanical engineers, chemical laboratory technicians and waste disposal and recycling specialists are currently trained at the Steyermühl site. The training workshop celebrates its 80th anniversary in 2018. In 2016 it was awarded the National Coat of Arms "State Certified Training Establishment" by the Austrian Federal Ministry of Education, Science and Research. It maintains a close cooperation with the surrounding technical schools and new middle schools. This cooperation involves information events for school classes, which are held in the training workshop and the papermakers museum, as well as invitations to taster sessions at Steyermühl for apprenticeship applicants.



Environmental parameters 2017

The figures related to production as well as raw material and energy consumption are published as aggregated figures on group level in the UPM Corporate Environmental Statement.

Production capacity	Paper	Up to 300,000 t
Raw materials and additives	Recovered paper Process chemicals Consumables	See UPM Corporate Environmental Statement for more information
Energy	Renewable and fossil fuels External power supply	62% renewable fuels See UPM Corporate Environmental Statement for more information
Emissions to air	Carbon dioxide, CO ₂ (fossil) Nitrogen oxide, NO _x Sulphur dioxide, SO ₂ Dust Carbon monoxide, CO	57,097 t 140 t 0.1 t 0.6 t 11.1 t
Water use	Process and cooling water	5,291,176 m ³
Discharges to water	Effluent volume COD BOD ₅ Phosphorus Nitrogen (inorganic) AOX	4,690,198 m ³ 626 t 43.7 t 0.8 t 1.5 t 0.4 t
Waste*	Total non-hazardous waste of which – Ash + bed sand – Metal – Other Waste recovery rate Hazardous waste	25,811 t 25,176 t 108 t 527 t 99.7% 63.1 t
Size of mill area		26 hectares, of which 90% developed or sealed, 10% near-natural

*Including moisture

COD: Chemical oxygen demand
BOD₅: Biological oxygen demand
AOX: Adsorbable organic halogens



Performance against targets 2017

TARGETS	APPOINTMENT DATE	STATUS
1 Health and safety Reduce number of workplace accidents. Target: "zero accidents in 2017", maximum of 1.5 (per one million working hours)	Consistent implementation of measures resulting from audits, internal standards and Group guidelines	0
Reduction of illness-related absences to < 3.5%	Consistent implementation of measures relating to "absence management"	3.76%
2 Waste Maintain ash recovery rate at 100%	Maintaining the use of ash as a stabilising agent in earth works, (dam building, road bases), cooperation with potential partners, notification of legal protection per Section 6 Austrian Waste Management Act	102% including removal from landfill
Reduce core waste	Force internal combustion in the fluidised bed boiler	12.94 t to the CFB (8% of the ensuing quantity)
3 Water Reduction of fresh water consumption in production to < 14 m ³ /t	Optimise water management due to the decommissioning of PM3 (new fibre/clear filtrate concept)	Narrowly missed
4 Water/air emissions Prevent Clean Run category 3–5 deviations	Further optimise start-up and shutdown plans for downtimes	0

Targets for 2018

TARGETS AND MEASURES	APPOINTMENT DATE	RESPONSIBLE
1 Health and safety Reduce number of workplace accidents. Target: "zero accidents in 2018", maximum of six TRIF= Total Recordable Injury Frequency (per one million working hours)	Consistent implementation of measures resulting from audits, internal standards and Group guidelines	All of UPM's
Reduction of illness-related absences to < 3.5%	Consistent implementation of measures relating to "absence management"	All of UPM's
2 Waste Maintain ash recovery rate at 100%	Maintaining the use of ash as a stabilising agent in earth works, (dam building, road bases), cooperation with potential partners	Environment/energy
Reduce core waste	Force internal combustion in the fluidised bed boiler	
3 Water Reduction of fresh water consumption in production to < 14 m ³ /t	Optimise water management (new fibre/clear filtrate concept)	Production
4 Water/air emissions Prevent Clean Run category 3–5 deviations	Further optimise start-up and shutdown plans for downtimes No severe fire events	Production



Validation statement

This supplementary report for the calendar year 2017 for UPM-Kymmene Austria GmbH, Fabrikplatz 1, 4662 Steyrermühl, Austria has been verified within the scope of the EMAS Regulation by

Quality Austria Trainings-, Zertifizierungs- und Begutachtungs GmbH
Zelinkagasse 10/3, 1010 Wien
AT-V-0004

The Managing Environmental Verifiers at Quality Austria Trainings-, Zertifizierungs- und Begutachtungs GmbH hereby declare that the environmental policy, environmental program, environmental management system, environmental audit and environmental audit procedures of the organisation comply with Regulation (EC) No. 1221/2009 of the European Parliament and of the Council on 25 November 2009 (EMAS Regulation), as amended by Commission Regulation (EU) 2017/1505, and the relevant contents of the supplementary report are valid in accordance with Annex IV, section B, letters a–h within the scope of the group registration with Reg. No. FI-000058.

The next full environmental statement will be published in the second quarter of 2019, with data until the end of 2018.

Updates are supplied annually as supplementary sheets.

Steyrermühl, 15/03/2018

Werner Schöngrundner

Dipl.-Ing. Dr. Werner SCHÖNGRUNDNER
Managing Environmental Verifier

W. Hackenauer

Ing. Wolfgang HACKENAUER
Managing Environmental Verifier





www.upm.com

UPM-Kymmene Austria GmbH

Fabriksplatz 1
4662 Laakirchen
Austria
Tel.: +43 (0)7613 8900-0
Fax: +43 (0)7613 2440

**For more information,
please do not hesitate to contact us:**

Dipl. Ing. (FH) Ernst Spitzbart
General Manager
Tel.: +43 (0)7613 8900-0

Christian Polzinger, MSc
Environmental protection
Tel.: +43 (0)7613 8900-509

Email: info.steyrermuhl@upm.com